

TURBINE CEMENT/WATER MIXER FOR CONCRETE PRODUCTION

ABSTRACT OF THE DISCLOSURE

[0073] A high-speed turbine mixer combines water and cement into a pre-mixed cement paste that is added to aggregates to create a concrete mix. The turbine mixer includes a housing that cooperates with an auger to move dry cement into a mixing chamber where water is added. A mixing plate rotates at high speed to break up water and cement into small particles that enhances the hydration of the cement and increases the air content in the resultant cement paste. The cement paste is then conveyed to a mixing auger to be combined with aggregates to create a concrete mix. The mixing plate divides the mixing chamber to force the mixing water and cement particles to pass through a circumferential annular opening past agitating fins. Admixtures can be added to the cement as a powder or to the water as a liquid for incorporation into the cement paste.